

ABSTRACT OF THE DISCLOSURE

A shift control apparatus of an automatic transmission of a motor vehicle to which torque is transmitted from an engine via a fluid coupling device is provided. In the automatic transmission including a plurality of hydraulically operated friction elements, a clutch-to-clutch downshift is carried out during coasting of the vehicle by releasing one of the friction elements and engaging another friction element. A controller of the shift control apparatus detects a difference between input and output rotation speeds of the fluid coupling device, and increases an engine speed by a controlled amount based on the difference between the input and output rotation speeds when the clutch-to-clutch downshift is carried out during coasting of the vehicle, so that the vehicle is brought into a minimal driving state in which the engine speed is slightly higher than the output rotation speed of the fluid coupling device.